

Abstract of paper to be presented at the International Workshop on Satellite Remote Sensing and Climate Simulations, Les Diablerets, Switzerland, September 20-24, 1999.

Title: Anticipated Results from the EOS Terra Multi-angle Imaging SpectroRadiometer

Author: David J. Diner and John V. Martonchik

Affiliation: Jet Propulsion Laboratory, California Institute of Technology

Launch of the Multi-angle Imaging SpectroRadiometer (MISR) aboard the EOS Terra platform is scheduled for the latter part of 1999. MISR acquires pushbroom images of the Earth at 9 viewing angles ranging from 70.5 deg. forward to 70.5 deg. aftward of nadir, in 4 visible/near-IR spectral bands at each angle. Data are acquired over a swath width of approximately 400 km, with selectable footprints in each channel ranging from 275 m to 1.1 km. MISR data products include geophysical parameters relating to aerosols, clouds, and the land surface. An overview of some of the principal algorithms used to generate these products will be discussed including some results obtained with these algorithms, using simulated data as well as data from an aircraft version of the MISR instrument. Descriptions and examples of the HDF-EOS MISR products that will be available to the scientific community, such as top-of-atmosphere multi-angle radiances, stereoscopic surface and cloud altitudes, aerosol maps, and surface albedos and directional reflectances, will also be presented.